

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-36. (Cancelled)

37. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ 100 ten-microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having a diameter of from ~~about~~ 100 ten-microns to ~~about~~ 3,000 microns comprise a polymer and have an interior region and a surface region, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant.

38. (Original) The composition of claim 37, wherein the carrier fluid comprises a saline solution.

39. (Original) The composition of claim 37, wherein the carrier fluid comprises a contrast agent.

40. (Currently Amended) The composition of claim 37, wherein the plurality of particles has an arithmetic mean diameter of ~~about~~ 3,000 microns or less.

41. (Currently Amended) The composition of claim 37, wherein the plurality of particles has an arithmetic mean diameter of ~~about~~ ten microns or more.

42. (Previously Presented) The composition of claim 37, wherein the carrier fluid comprises a surfactant.

43. (Currently Amended) The composition of claim 37, wherein the interior region is ~~substantially~~ devoid of the polymer.

44. (Currently Amended) The composition of claim 37, wherein the interior region comprises at most ~~about~~ 50 weight percent of the polymer.

45. (Currently Amended) The composition of claim 44, wherein the plurality of particles comprise from ~~about~~ 0.1 weight percent to ~~about~~ 90 weight percent of the polymer.

46. (Currently Amended) The composition of claim 37, wherein the interior region comprises at least ~~about~~ 0.1 weight percent of the polymer.

47. (Currently Amended) The composition of claim 37, wherein the surface region comprises at least ~~about~~ 0.1 weight percent of the polymer.

48. (Currently Amended) The composition of claim [[48]] 37, wherein the plurality of particles comprise from ~~about~~ 0.1 weight percent to ~~about~~ 90 weight percent of the polymer.

49. (Currently Amended) The composition of claim 37, wherein the surface region comprises at most ~~about~~ 100 weight percent of the polymer.

50. (Currently Amended) The composition of claim 37, wherein the difference between the weight percent of the polymer in the interior region and the weight percent of the polymer at the surface region is at least ~~about~~ 30 weight percent.

51. (Cancelled).

52. (Currently Amended) The composition of claim 37, wherein the plurality of particles have a diameter of at most ~~about~~ 2,500 microns.

53. (Cancelled).

54. (Cancelled).

55. (Previously Presented) The composition of claim 37, wherein the polymer comprises a backbone and side groups that are more polar than the backbone.

56. (Currently Amended) The composition of claim 37, wherein the polymer has a molecular weight of from ~~about~~ 500 to ~~about~~ 15,000.

57. (Currently Amended) The composition of claim 37, wherein the polymer is substantially linear.

58. (Cancelled) .

59. (Previously Presented) The composition of claim 37, wherein O comprises a member selected from the group consisting of polyurethanes, polyureas, polyamides, polyalkylene oxides, polycarbonates, polyesters, polylactones, polysilicones, polyethersulfones, polyolefins, polyvinyls, polypeptide polysaccharides, and ether and amine linked segments thereof.

60. (Previously Presented) The composition of claim 59, wherein A comprises a member selected from the group consisting of diamines, diisocyanates, disulfonic acids, dicarboxylic acids, diacid chlorides, and dialdehydes.

61. (Previously Presented) The composition of claim 37, wherein B comprises a member selected from the group consisting of diamines, diisocyanates, disulfonic acids, dicarboxylic acids, diacid chlorides, and dialdehydes.

62. (Previously Presented) The composition of claim 61, wherein B further comprises a functional group selected from the group consisting of esters, carboxylic acid salts, sulfonic acid salts, phosphonic acid salts, thiols, vinyls, and secondary amines.

63. (Previously Presented) The composition of claim 37, wherein D comprises  $\text{CF}_3(\text{CF}_2)_p\text{CH}_2\text{CH}_2-$ , wherein p is from two to 20.

64. (Previously Presented) The composition of claim 37, wherein D comprises  $\text{CF}_3(\text{CF}_2)_m(\text{CH}_2\text{CH}_2\text{O})_q-$ , wherein m is from one to 20 and q is from one to ten.

65. (Previously Presented) The composition of claim 64, wherein the plurality of particles further comprise a therapeutic agent.

66. (Previously Presented) The composition of claim 37, wherein the plurality of particles further comprise a therapeutic agent.

67. (Previously Presented) The composition of claim 37, wherein the plurality of particles further comprise an additional polymer.

68. (Previously Presented) The composition of claim 67, wherein the additional polymer comprises a member selected from the group consisting of polyvinyl alcohols, polyacrylic acids, polymethacrylic acids, poly vinyl sulfonates, carboxymethyl celluloses, hydroxyethyl celluloses, celluloses, polyacrylamides, polyethylene glycols, polyamides, polyureas, polyurethanes, polyesters, polyethers, polystyrenes, polysaccharides, polylactic acids, polyethylenes, polymethylmethacrylates, polycaprolactones, polyglycolic acids, poly(lactic-co-glycolic) acids, and combinations thereof.

69. (Previously Presented) The composition of claim 67, wherein the plurality of particles further comprise a therapeutic agent.

70. (Previously Presented) The composition of claim 69, wherein the therapeutic agent is bound to the polymer.

71. (Previously Presented) The composition of claim 37, wherein the plurality of particles further comprise a polysaccharide.

72. (Currently Amended) The composition of claim 37, wherein the plurality of particles are substantially spherical.

73. (Previously Presented) The composition of claim 37, wherein the plurality of particles further comprise a coating disposed over the surface region.

74. (Previously Presented) The composition of claim 73, wherein the coating is bioabsorbable.

75. (Currently Amended) The composition of claim 37, wherein the plurality of particles comprise from ~~about~~ 0.25 weight percent to ~~about~~ 50 weight percent of the polymer.

76. (Currently Amended) The composition of claim 37, wherein the plurality of particles comprise from ~~about~~ 15 weight percent to ~~about~~ 35 weight percent of the polymer.

77. (Currently Amended) The composition of claim 37, wherein the interior region has a density of large pores and the surface region has a density of large pores, and the density of large pores of the interior region is greater than the density of large pores at the surface region.

78. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius  $r$ , the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from a radius of about 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first

oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the interior region comprises at most ~~about~~ 50 weight percent of the polymer.

79. (Currently Amended) The composition of claim 78, wherein the plurality of particles comprise from ~~about~~ 0.1 weight percent to ~~about~~ 90 weight percent of the polymer.

80. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from a radius of about ~~2r/3~~ to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the interior region comprises at least ~~about~~ 0.1 weight percent of the polymer.

81. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from ~~a radius of about 2r/3 to r, a~~ weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the surface region comprises at least ~~about~~ 0.1 weight percent of the polymer.

82. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a

radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from ~~a radius of about~~ 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant.

83. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from ~~a radius of about~~ 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the polymer comprises a backbone and side groups that are more polar than the backbone.

84. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius  $r$ , the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius  $r$  to a radius of ~~about~~  $2r/3$ , and the at least some of the particles have a surface region extending from a radius of ~~about~~  $2r/3$  to  $r$ , a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula  $D-B-[O-(A-O)_n-B]_m-D$ , in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the polymer has a molecular weight of from ~~about~~ 500 to ~~about~~ 15,000.

85. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles

having have a diameter of from about ten microns to about 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from a radius of about 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20.

86. (Previously Presented) The composition of claim 85, wherein O comprises a member selected from the group consisting of polyurethanes, polyureas, polyamides, polyalkylene oxides, polycarbonates, polyesters, polylactones, polysilicones, polyethersulfones, polyolefins, polyvinyls, polypeptide polysaccharides, and ether and amine linked segments thereof.

87. (Previously Presented) The composition of claim 86, wherein A comprises a member selected from the group consisting of diamines, diisocyanates, disulfonic acids, dicarboxylic acids, diacid chlorides, and dialdehydes.

88. (Previously Presented) The composition of claim 85, wherein B comprises a member selected from the group consisting of diamines, diisocyanates, disulfonic acids, dicarboxylic acids, diacid chlorides, and dialdehydes.

89. (Previously Presented) The composition of claim 88, wherein B further comprises a functional group selected from the group consisting of esters, carboxylic acid salts, sulfonic acid salts, phosphonic acid salts, thiols, vinyls, and secondary amines.

90. (Previously Presented) The composition of claim 85, wherein D comprises  $\text{CF}_3(\text{CF}_2)_p\text{CH}_2\text{CH}_2-$ , wherein p is from two to 20.

91. (Previously presented) The composition of claim 85, wherein D comprises  $\text{CF}_3(\text{CF}_2)_m(\text{CH}_2\text{CH}_2\text{O})_q-$ , wherein m is from one to 20 and q is from one to ten.

92. (Previously Presented) The composition of claim 91, wherein the plurality of particles further comprise a therapeutic agent.

93. (Currently Amended) A composition, comprising:  
a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from a radius of about 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the

polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the plurality of particles further comprise a therapeutic agent.

94. (Previously Presented) The composition of claim 93, wherein the therapeutic agent is bound to the polymer.

95. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from a radius of about 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the plurality of particles further comprise a polysaccharide.

96. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least some of the particles have a surface region extending from a radius of about 2r/3 to r, a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula D-B-[O-(A-O)<sub>n</sub>-B]<sub>m</sub>-D, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the plurality of particles are ~~substantially~~ spherical.

97. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius r, the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius r to a radius of about 2r/3, and the at least

some of the particles have a surface region extending from ~~a radius of about~~  $2r/3$  to  $r$ , a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula  $D-B-[O-(A-O)_n-B]_m-D$ , in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the plurality of particles comprise a coating over the surface region.

98. (Previously Presented) The composition of claim 97, wherein the coating is bioabsorbable.

99. (Currently Amended) A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of from about ten microns to ~~about~~ 3,000 microns, wherein the at least some of the particles having have a diameter of from ~~about~~ ten microns to ~~about~~ 3,000 microns, the at least some of the particles comprise a polymer, the at least some of the particles have a center and a radius  $r$ , the at least some of the particles have and have an interior region extending from [[a]] the center of the particles having a radius  $r$  to a radius of about  $2r/3$ , and the at least some of the particles have a surface region extending from ~~a radius of about~~  $2r/3$  to  $r$ , a weight percent of the polymer in the interior region being less than a weight percent of the polymer at the surface region; and the interior region comprising an additional polymer in a greater amount than in the surface region, the additional polymer being different from the polymer; wherein the polymer has the formula  $D-B-[O-(A-O)_n-B]_m-D$ , in which O is a first

oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20; and

a carrier fluid, the plurality of particles being in the carrier fluid, wherein the carrier fluid comprises a component selected from the group consisting of a saline solution, a contrast agent, and a surfactant,

wherein the interior region has a density of large pores and the surface region has a density of large pores, and the density of large pores of the interior region is greater than the density of large pores at the surface region.

100. (Previously Presented) The composition of claim 67, wherein  
wherein the additional polymer comprises a member selected from the group  
consisting of polyvinyl alcohols, polyacrylic acids, polymethacrylic acids, poly vinyl  
sulfonates, carboxymethyl celluloses, hydroxyethyl celluloses, celluloses, polyacrylamides,  
polyethylene glycols, polyamides, polyureas, polyurethanes, polyesters, polyethers,  
polystyrenes, polysaccharides, polylactic acids, polyethylenes, polymethylmethacrylates,  
polycaprolactones, polyglycolic acids, poly(lactic-co-glycolic) acids, and combinations  
thereof;

wherein O comprises a member selected from the group consisting of polyurethanes,  
polyureas, polyamides, polyalkylene oxides, polycarbonates, polyesters, polylactones,  
polysilicones, polyethersulfones, polyolefins, polyvinyls, polypeptide polysaccharides, and  
ether and amine linked segments thereof;

wherein A comprises a member selected from the group consisting of diamines,  
diisocyanates, disulfonic acids, dicarboxylic acids, diacid chlorides, and dialdehydes;

wherein B comprises a member selected from the group consisting of diamines,  
diisocyanates, disulfonic acids, dicarboxylic acids, diacid chlorides, and dialdehydes; and

wherein D is selected from the group consisting of  $\text{CF}_3(\text{CF}_2)_p\text{CH}_2\text{CH}_2-$  and  
 $\text{CF}_3(\text{CF}_2)_m(\text{CH}_2\text{CH}_2\text{O})_q-$ , wherein p is from 2 to 20, m is from 1 to 20 and q is from 1 to  
10.